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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,540	08/26/2003	Jiawen Dong	134717-1	4671

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EXAMINER	
HUSON, MONICA ANNE	
ART UNIT	**PAPER NUMBER**
1732	

DATE MAILED: 07/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/648,540	DONG ET AL.	
	Examiner	Art Unit	
	Monica A. Huson	1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 April 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *041006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This office action is in response to the paper filed 27 April 2006.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosato's Injection Molding Handbook (3rd ed.). Regarding Claim 1, Rosato shows that it is known to carry out a method of molding an article, comprising injection molding a polymeric material at a melt temperature of about 330 to 370°C (Table 4-8, PEEK) into a mold having a mold temperature of about 90 to about 130°C (Table 4-8, PEEK; It is being interpreted that 160°C meets "about 130°C".) and a clamp tonnage of about 12 to about 35 tons to form the article (Page 77-78, Kurto/John Manufacturer). Rosato does not specifically show using his specific clamp tonnage in combination with the melt and mold temperature parameters. However, it is believed that one of ordinary skill in the art would recognize clamp tonnage as a result-effective variable. Therefore, it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to choose a clamp tonnage such as Rosato discloses with his other process parameters as part of routine experimentation in order to fine tune a molding process. See MPEP 2144.05 (II)(B)

Regarding Claim 4, Rosato shows the process as claimed as discussed in the rejection of Claim 1 above, including a method wherein the melt

temperature is of about 340 to about 360°C (Figure 4-8), meeting applicant's claim.

Regarding Claim 5, Rosato shows the process as claimed as discussed in the rejection of Claim 1 above, including a method wherein the mold temperature is of about 100 to about 120°C (Figure 4-8), meeting applicant's claim.

Regarding Claim 6, Rosato shows the process as claimed as discussed in the rejection of Claim 1 above, including a method wherein the clamp tonnage is of about 15 to about 30 tons (Page 77-78), meeting applicant's claim.

Claims 2, 3, 15, 16, 18-21, 24, 31, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosato, in view of Toshihiko et al. (JP 10-306268).

Regarding Claim 2, Rosato shows the process as claimed as discussed in the rejection of Claim 1 above, but he does not show a radial tilt change. Toshihiko et al., hereafter "Toshihiko," show that it is known to carry out a method wherein a disk assembly fabricated from the disk exhibits a radial tilt change value after 96 hours at 80°C of less than or equal to about 0.35 degree (Para. 0008; It is noted that the phrase "measured at a radius of 55 millimeters" is seen as only indicating the radius of the disk, which does not have a manipulative effect on the stepwise limitations of the method claim.). Toshihiko and Rosato are combinable because they are concerned with a similar technical field, namely, methods of injection molding articles. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Toshihiko's radial tilt change value as a parameter of Rosato's molding process in order to accurately form an article that must meet strict end-use specifications.

Regarding Claim 3, Rosato shows the process as claimed as discussed in the rejection of Claim 1 above, but he does not show a radial tilt change.

Toshihiko shows that it is known to carry out a method wherein a disk assembly fabricated from the disk exhibits a radial tilt change value after 96 hours at 80°C of less than or equal to about 0.15 degree (Para. 0008; It is noted that the phrase "measured at a radius of 55 millimeters" is seen as only indicating the radius of the disk, which does not have a manipulative effect on the stepwise limitations of the method claim.). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Toshihiko's radial tilt change value as a parameter of Rosato's molding process in order to accurately form an article that must meet strict end-use specifications.

Regarding Claim 4, Rosato shows the process as claimed as discussed in the rejection of Claim 1 above, but he does not specifically show forming a data storage disk. Toshihiko shows that it is known to form a data storage disk from the molding process (Para 0002). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to form Toshihiko's data storage disk with Rosato's molding method in order to most efficiently form the desired article.

Regarding Claim 5, Rosato shows the process as claimed as discussed in the rejection of Claim 1 above, but he does not specifically show forming a laminate data storage assembly. Toshihiko shows that it is known to form a laminate data storage assembly from the molding process (Para 0004). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to form Toshihiko's data storage disk with Rosato's molding method in order to most efficiently form the desired article.

Regarding Claim 18, Rosato shows that it is known to carry out a method of molding an article comprising injection molding a polymeric material to form articles according to a molding model comprising molding parameters and molding parameter values (Page 78, 179, 180, , 260, 261). He does not show a radial tilt change. Toshihiko shows that it is known to carry out a method

including testing disk assemblies fabricated from the disks for radial tilt change, creating an updated molding model based on the molding parameter values that resulted in disk assemblies fabricated from the disks having a radial tilt change within a selected range of values; and repeating the molding, testing, and creating steps to form final disks and a final molding model, wherein disk assemblies fabricated from the final disks exhibit a radial tilt change value after aging of less than or equal to about 0.35 degree (Para 0008; It is noted that Toshihiko's "repeated research" would comprise the claimed steps.). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Toshihiko's radial tilt change value as a guiding variable of Rosato's molding process in order to accurately form an article that must meet strict end-use specifications.

Regarding Claim 19, Rosato shows the process as claimed as discussed in the rejection of Claim 18 above, but he does not show aging his molded articles. Toshihiko shows that it is known to carry out a process wherein the testing comprises aging the disk assemblies at 80°C for 96 hours (Para 0008). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to age Rosato's molded articles for a time according to Toshihiko in order to most effectively gather data with regard to the experimental variable.

Regarding Claim 20, Rosato shows the process as claimed as discussed in the rejection of Claim 18 above, but he does not show a radial tilt change. Toshihiko shows that it is known to carry out a method wherein a disk assembly fabricated from the disk exhibits a radial tilt change value after 96 hours at 80°C of less than or equal to about 0.35 degree (Para. 0008; It is noted that the phrase "measured at a radius of 55 millimeters" is seen as only indicating the radius of the disk, which does not have a manipulative effect on the stepwise limitations of the method claim.). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to

use Toshihiko's radial tilt change value as a parameter of Rosato's molding process in order to accurately form an article that must meet strict end-use specifications.

Regarding Claim 21, Rosato shows the process as claimed as discussed in the rejection of Claim 18 above, but he does not show a radial tilt change. Toshihiko shows that it is known to carry out a method wherein a disk assembly fabricated from the disk exhibits a radial tilt change value after 96 hours at 80°C of less than or equal to about 0.15 degree (Para. 0008; It is noted that the phrase "measured at a radius of 55 millimeters" is seen as only indicating the radius of the disk, which does not have a manipulative effect on the stepwise limitations of the method claim.). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Toshihiko's radial tilt change value as a parameter of Rosato's molding process in order to accurately form an article that must meet strict end-use specifications.

Regarding Claim 24, Rosato shows the process as claimed as discussed in the rejection of Claim 18 above, including a method wherein the molding parameters are melt temperature, mold temperature, clamp tonnage, hold pressure, cool time (Pages 60, 78, 179, 180, 260, 261, 283), meeting applicant's claim.

Regarding Claim 31, Rosato shows the process as claimed as discussed in the rejection of Claim 18 above, but he does not specifically show forming a data storage disk. Toshihiko shows that it is known to form a data storage disk from the molding process (Para 0002). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to form Toshihiko's data storage disk with Rosato's molding method in order to most efficiently form the desired article.

Regarding Claim 32, Rosato shows the process as claimed as discussed in the rejection of Claim 18 above, but he does not specifically show forming a

laminate data storage assembly. Toshihiko shows that it is known to form a laminate data storage assembly from the molding process (Para 0004). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to form Toshihiko's data storage disk with Rosato's molding method in order to most efficiently form the desired article.

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosato, in view of Dhar et al. (U.S. Patent 6,221,536).

Regarding Claim 7, Rosato shows the process as claimed as discussed in the rejection of Claim 1 above, but he does not show specific percent feature replication. Dhar et al., hereafter "Dhar," show that it is known to carry out a method wherein the disk exhibits a percent feature replication of greater than or equal to about 90 percent (Column 14, lines 1-4). Dhar and Rosato are combinable because they are concerned with a similar technical field, namely, methods of molding polymeric articles. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to follow Dhar's feature replication percentage as a result of Rosato's molding process in order to make a valuable product that accurately represents features from the mold surface.

Regarding Claim 8, Rosato shows the process as claimed as discussed in the rejection of Claim 1 above, but he does not show specific percent feature replication. Dhar shows that it is known to carry out a method wherein the disk exhibits a percent feature replication of greater than or equal to about 95 percent (Column 14, lines 1-4). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to follow Dhar's feature replication percentage as a result of Rosato's molding process in order to make a valuable product that accurately represents features from the mold surface.

Claims 9, 10, and 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rosato, in view of Adedeji et al. (US PGPub 2002/0137840).

Regarding Claim 9, Rosato shows the process as claimed as discussed in the rejection of Claim 1 above, but he does not show using a specific polymer. Adedji et al., hereafter "Adedji," show that it is known to carry out a method wherein the polymeric material comprises polyarylene ether and polyalkenyl aromatic (Abstract). Adedji and Rosato are combinable because they are concerned with a similar technical field, namely, methods of molding polymeric articles. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Adedji's specific polymer in Rosato's molding process in order to obtain an article that meets exclusive end-use specifications characteristic of the certain polymer.

Regarding Claim 10, Rosato shows the process as claimed as discussed in the rejection of Claim 9 above, but he does not show using a specific polymeric structure. Adedji shows that it is known to carry out a method wherein the polyarylene ether comprises the claimed structure (see claim listing) (Paragraphs 0015-0016). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Adedji's specific polymeric structure in Rosato's molding process in order to obtain an article that meets exclusive end-use specifications characteristic of the certain polymer.

Regarding Claim 14, Rosato shows the process as claimed as discussed in the rejection of Claim 9 above, but he does not show a specific molding composition. Adedeji shows that it is known to carry out a method wherein the polyarylene ether is present in the polymeric material in an amount of about 40 percent by weight and the polyalkenyl aromatic is present in the polymeric material in amount of about 60 percent by weight based on the total weight of the polyarylene ether and the polyalkenyl aromatic (Para 0014). It would have been prima facie obvious to one of ordinary skill in the art at the time the

invention was made to use Adedeji's specific polymer in Rosato's molding process in order to obtain an article that meets exclusive end-use specifications characteristic of the certain polymer.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rosato and Singh, further in view of Fortuyn et al. (U.S. Patent 6,306,953). Rosato shows the process as claimed as discussed in the rejection of Claim 9 above, but he does not show using a polymer with a specific viscosity. Fortuyn et al., hereafter "Fortuyn," show that it is known to carry out a method wherein the polyarylene ether has an intrinsic viscosity of about 0.10 to about 0.60 deciliters per gram as measured in chloroform at 25°C (Column 2, lines 41-43). Fortuyn and Rosato are combinable because they are concerned with a similar technical field, namely, methods of molding polymeric articles. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use a material with Fortuyn's viscosity in Rosato's molding process in order to obtain an article that meets exclusive end-use specifications characteristic of the certain polymer.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rosato and Singh, further in view of Allen (U.S. Patent 4,727,093). Rosato shows the process as claimed as discussed in the rejection of Claim 9 above, but he does not show a specific polyalkenyl aromatic. Allen shows that it is known to carry out a process wherein the polyalkenyl aromatic contains at least 25% by weight of the claimed structural units (see claim listing) (Column 4, lines 3-23). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Allen's specific polymeric structure in Rosato's molding process in order to obtain an article that meets exclusive end-use specifications characteristic of the certain polymer.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rosato and Singh, further in view of Cheung et al. (U.S. Patent 5,872,201). Rosato shows the process as claimed as discussed in the rejection of Claim 9 above, but he does not hsow a specific polyalkenyl aromatic. Cheung et al., hereafter "Cheung," show that it is known to carry out a method wherein the polyalkenyl aromatic is atactic crystal polystyrene (Column 7, lines 37-38). Cheung and Rosato are combinable because they are concerned with a similar technical field, namely, methods of molding polymeric articles. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Cheung's specific polymer in Rosato's molding process in order to obtain an article that meets exclusive end-use specifications characteristic of the certain polymer.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rosato, in view of Karasz et al. (U.S. Patent 5,286,812). Rosato shows that it is known to carry out a method of molding an article, comprising injection molding a polymeric material at a melt temperature of about 330 to 370°C (Table 4-8) into a mold having a mold temperature of about 90 to about 130°C (Table 4-8) and a clamp tonnage of about 12 to about 35 tons to form the article (Page 77-78). Rosato does not show a specific molding material. Karasz et al., hereafter "Karasz," show that it is known to carry out a method wherein the polymeric material comprises poly(2,6-dimethyl-1,4-phenylene oxide) and polystyrene (Column 1, lines 59-65). Karasz and Rosato are combinable because they are concerned with a similar technical field, namely, methods of molding polymeric articles. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Karasz's specific material in Rosato's molding process in order to obtain an article that meets exclusive end-use specifications characteristic of the certain material.

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rosato and Toshihiko, further in view of Ohkawa et al. (U.S. Patent 5,525,645). Rosato shows the process as claimed as discussed in the rejection of Claim 18 above, but he does not show testing the articles for percent feature replication. Ohkawa et al., hereafter "Ohkawa," show that it is known to carry out a method comprising testing the disks for percent feature replication; creating an updated molding model based on the mold parameter values that resulted in disks exhibiting a percent feature replication within a selected range of values; and repeating the molding, testing, and creating steps until the final disks exhibit a percent feature replication of greater than or equal to about 90 percent (Column 12, lines 66-67; Column 13, lines 1-11, 45-67; Column 14, lines 1-2). Ohkawa and Rosato are combinable because they are concerned with a similar technical field, namely, methods of molding polymeric articles. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to follow Ohkawa's testing procedures with Rosato's molding process in order to insure the quality of the molded articles.

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rosato, Toshihiko and Ohkawa, further in view of Dhar. Rosato shows the process as claimed as discussed in the rejection of Claim 22 above, but he does not show specific percent feature replication. Dhar shows that it is known to carry out a method wherein the disk exhibits a percent feature replication of greater than or equal to about 95 percent (Column 14, lines 1-4). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to follow Dhar's feature replication percentage as a result of Rosato's molding process in order to make a valuable product that accurately represents features from the mold surface.

Claims 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosato and Toshihiko, further in view of Singh.

Regarding Claims 25 and 26, Rosato shows the process as claimed as discussed in the rejection of Claim 18 above, but he does not show using a specific polymer. Singh shows that it is known to carry out a method wherein the polymeric material comprises polyarylene ether (Column 3, lines 5-6). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Singh's specific polymer in Rosato's molding process in order to obtain an article that meets exclusive end-use specifications characteristic of the certain polymer.

Regarding Claim 27, Rosato shows the process as claimed as discussed in the rejection of Claim 26 above, but he does not show using a specific polymeric structure. Singh shows that it is known to carry out a method wherein the polyarylene ether comprises the claimed structure (see claim listing) (Column 3, lines 5-27). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Singh's specific polymeric structure in Rosato's molding process in order to obtain an article that meets exclusive end-use specifications characteristic of the certain polymer.

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rosato, Toshihiko, and Singh, further in view of Fortuyn. Rosato shows the process as claimed as discussed in the rejection of Claim 26 above, but he does not show using a polymer with a specific viscosity. Fortuyn shows that it is known to carry out a method wherein the polyarylene ether has an intrinsic viscosity of about 0.10 to about 0.60 deciliters per gram as measured in chloroform at 25°C (Column 2, lines 41-43). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use a material with Fortuyn's viscosity in Rosato's molding process in order to

obtain an article that meets exclusive end-use specifications characteristic of the certain polymer.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rosato, Toshihiko, and Singh, further in view of Allen. Rosato shows the process as claimed as discussed in the rejection of Claim 26 above, but he does not show a specific polyalkenyl aromatic. Allen shows that it is known to carry out a process wherein the polyalkenyl aromatic contains at least 25% by weight of the claimed structural units (see claim listing) (Column 4, lines 3-23). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Allen's specific polymeric structure in Rosato's molding process in order to obtain an article that meets exclusive end-use specifications characteristic of the certain polymer.

Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rosato, Toshihiko, and Singh, further in view of Adedeji. Rosato shows the process as claimed as discussed in the rejection of Claim 9 above, but he does not show a specific molding composition. Adedeji shows that it is known to carry out a method wherein the polyarylene ether is present in the polymeric material in an amount of about 40 percent by weight and the polyalkenyl aromatic is present in the polymeric material in amount of about 60 percent by weight based on the total weight of the polyarylene ether and the polyalkenyl aromatic (Para 0014). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Adedeji's specific polymer in Rosato's molding process in order to obtain an article that meets exclusive end-use specifications characteristic of the certain polymer.

Response to Arguments

Applicant's arguments filed 27 April 2006 have been fully considered but they are not persuasive.

Regarding Claim 1, applicant contends that Rosato does not show the instant invention because he fails to disclose the unique combination of the particular melt temperature and mold temperature. This is not persuasive because Rosato does suggest applicant's claimed temperatures in Table 4-8, wherein the melt temperature of PEEK is 334C and its mold temperature is 160C. The examiner notes again that 160C is being interpreted to meet the limitation of "about 130C". Although applicant contends that the term "about" is used "to accommodate the inherent slight variability of mold temperatures", the term is not explicitly defined in the specification and can therefore be interpreted fairly broadly. Further, although applicant contends that a different of 30C "may likely result in significant differences in properties of molded plastics", there is no evidence to support this assertion.

Applicant contends that there is no motivation to combine Rosato's specific temperature disclosures (as discussed above) with a certain clamp tonnage. This is not persuasive because the examiner maintains that clamp tonnage *is* a result-effective variable that is easily optimized and determined through experimentation. Although the table does not explicitly identify clamp tonnage as a result-effective variable, it is an implicit tenet of injection molding that improper clamping force can result in a malformed article.

Applicant contends that the claimed clamp tonnage range could not be optimized from Table 2-3 through routine experimentation. This is not persuasive because, although there are quite a few different clamp tonnage ranges, the examiner believes that a simple experiment would easily and quickly identify the optimal clamp tonnage amount. Such an experiment may have the following steps: 1. Inject melt at its desired temperature into a mold at a desired temperature. 2. Clamp mold at clamp tonnage #1. 3. Open mold

after proper time period. 4. Analyze molded part. 5. Determine whether it is an acceptable part; if not, discard clamp tonnage #1 and select the next clamp tonnage. 6. Repeat steps 1-5 until optimal clamping tonnage range(s) is/are identified.

Although applicant believes that there is no motivation to combine Rosato's teachings to arrive at the claimed melt temperature, mold temperature, and clamping tonnage, the examiner maintains her original position that the modifications would be obvious in order to produce a fine-tuned molding process. Purely for *support of her opinion* that one of ordinary skill in the art would easily choose the claimed operating parameters, the examiner points to US 4632798, which discloses molding a material whose melt temperature is between 250C and 390C in a mold whose temperature is between 100C and 250C and whose clamping tonnage is 35 to 40 tons (Column 19, lines 29-37).

Regarding Claim 18, applicant contends that Toshihiko and Rosato do not teach the instant invention because Toshihiko's "repeated research" would not involve steps such as molding an article, testing the article, updating the molding parameters, and repeating until the article satisfies certain specifications. This is not persuasive because Toshihiko indicates that the research is repeated so that an information record equipped with "the property" may be obtained. Although "the property" could be any number of characteristics, Toshihiko clearly discloses that radial tilt is an important property of an information disk, and it is reasonable to interpret that his research would comprise experiments to perfect radial tilt in his molded article. Furthermore, although Toshihiko does not explicitly give research steps, the concept of carrying out a process, testing the result, modifying the initial process, and testing the subsequent result are steps of the scientific method used in research environments.

Regarding all other claims, applicant contends that the claims are patentable for the same or similar reasons as claims 1 and 18. These reasons are not persuasive, as discussed in the preceeding paragraphs.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica A. Huson whose telephone number is 571-272-1198. The examiner can normally be reached on Monday-Friday 6:45am-3:15pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571-272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Monica A Huson
June 30, 2006

CHRISTINA JOHNSON
PRIMARY EXAMINER
7/7/06